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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,457	10/30/2003	Craig M. Perlov	10005727-8	7988

7590 10/19/2005

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EXAMINER	
GUERRERO, MARIA F	

ART UNIT	PAPER NUMBER
2822	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,457	PERLOV ET AL.	
	Examiner	Art Unit	
	Maria Guerrero	2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *30* is/are allowed.

6)☒ Claim(s) *19,20 and 22-29* is/are rejected.

7)☒ Claim(s) *21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response the amendment and the Request for continued examination filed October 3, 2005.

Status of Claims

2. Claims 1-18 are canceled. Claims 19-30 are pending.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 3, 2005 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilligan (U.S. 4,473,892).

Gilligan shows assembling a common substrate having multiple sections (Abstract). Gilligan teaches constructing at least one fold line on the substrate to separate the multiple sections (Fig. 1-5, col. 2, lines 1-45, col. 3, lines 30-65). Gilligan discloses fabricating memory structure on at least two sections of the substrate and depositing a semiconductor layer on at least one section of the substrate (Abstract, col. 2, lines 1-45, col. 3, lines 30-67, col. 5, lines 50-67, col. 6, lines 13-65). Gilligan shows folding the substrate along the fold line to stack the multiple sections on top of each other and align the memory structure on adjacent folded sections to form a plurality of diodes (Abstract, col. 2, lines 20-45, col. 3, lines 30-67, lines 1-65, col. 5, lines 50-67, col. 6, lines 13-65).

In addition, the elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 19-20 and 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. 5,224,023) in view of Kuriyama (US 5,459,641).

Smith et al. shows assembling a common substrate having multiple sections (Abstract). Smith et al. teaches constructing at least one fold line on the substrate to separate the multiple sections (Fig. 1-2, col. 1, lines 35-45). Smith et al. discloses fabricating memory structure on at least two sections of the substrate (Abstract, col. 4, lines 10-15). Smith et al. shows folding the substrate along the fold line to stack the multiple sections on top of each other and align the memory structure on adjacent folded sections to form at least one operable electrical device (Abstract). The memory structures interacting with each other is considered to be inherent from the disclosure because Smith recites this invention relates to the art of electronic circuit packaging and more specifically to the packaging of high density integrated circuits on groups of printed circuit boards plugged into a motherboard (col. 1, lines 5-10). Smith describes the assembly of modern high-speed memory modules requires the grouping of integrated circuit packages in a closely interconnect configuration (Abstract, col. 1, lines 10-45).

Smith et al. teaches including conductor grids perpendicular to each other (Fig. 1-3, col. 2, lines 1-68), col. 1, lines 58-678, col. 2, lines 1-20). Smith et al. discloses

applying multiple aligned perforations and forming threes separate sections capable of folding to a stacked layer configuration (Fig. 1-3, col. 2, lines 1-25). Smith et al. shows the sections being folded so that a center section of the substrate becomes a center layer of the folded sections and two fold lines are parallel to each other and at least two fold line are not parallel to each other (Fig. 1-3,col. 2, lines 1-20).

Smith et al. is silent about forming a plurality of diodes. However, Kuriyama is cited as evidence to show that including a plurality of diodes in a package of high-density integrated circuits having semiconductor chips is well known in the art (Abstract, col. 1, lines 6-14, 59-67, col. 2, lines 14-52, col. 4, lines 62-67, col. 5, lines 1-40, col. 6, lines 1-5).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that a plurality of diodes would be included in Smith et al. as taught by Kuriyama in order to obtain a package having a plurality of diodes while avoiding erroneous operation of the diodes and avoiding generation of a lot heat (Kuriyama, col. 1, lines 40-67).

Allowable Subject Matter

6. Claim 30 is allowed.

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 19-20 and 22-29 have been considered but are moot in view of the new ground(s) of rejection.

8. In addition, there is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. Schering Corp. v. Geneva Pharm. Inc., 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003). See also Toro Co. v. Deere & Co., 355 F.3d 1313, 1320, 69 USPQ2d 1584, 1590 (Fed. Cir. 2004)(" The fact that a characteristic is a necessary feature or result of a prior-art embodiment (that is itself sufficiently described and enabled) is enough for inherent anticipation, even if that fact was unknown at the time of the prior invention."); Abbott Labs v. Geneva Pharms., Inc., 182 F.3d 1315, 1319, 51 USPQ2d 1307, 1310 (Fed.Cir.1999).

9. Furthermore, during patent examination, the pending claims must be "given *>their< broadest reasonable interpretation consistent with the specification." > In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). While the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their

terms reasonably allow. > In re American Academy of Science Tech Center, F.3d, 2004 WL 1067528 (Fed. Cir. May 13, 2004)(The USPTO uses a different standard for construing claims than that used by district courts; during examination the USPTO must give claims their broadest reasonable interpretation.) < This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) >; Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). There is not evidence of any special definition to the terms recited on the claims; therefore, the claims have been interpreted according to plain meaning and giving the broadest reasonable interpretation.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Guerrero whose telephone number is 571-272-1837.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 17, 2005

MARIA F. GUERRERO
PRIMARY EXAMINER